

PD990096

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## What is claimed is:

1. Method for controlling the search mode by means of tape transport control in a video recorder according to the helical scan method, in particular in a video recorder in accordance with the D-VHS system standard, which enables both the recording and/or reproduction of analogue and the recording and/or reproduction of digital television signals in slanted tracks of a recording medium, numbering of the slanted tracks and longitudinal track recording of CTL pulses being provided with the recording of digital television signals, **characterized in** that the search mode for digital television signals is carried out using an evaluation of the slanted track numbering in conjunction with the evaluation of successive CTL pulses which have been recorded during the recording of the digital television signals, by the search mode having the following successive steps:
- a) inputting of a stop time of the search,
  - b) determination of a tape position as start position by reading the slanted track numbering at a tape transport speed  $v_1$ ,
  - c) acceleration of the tape transport to a tape transport speed  $v_2$  by means of a tape winding device,
  - d) control of the tape transport by reading and evaluating successive CTL pulses with reference to the start and/or target position,
  - e) reduction in the tape transport speed  $v_2$  in the vicinity of the target position to the tape transport speed  $v_1$ , and
  - f) control of the search by reading and evaluating the slanted track numbering until the target position is reached.
2. Method according to claim 1, **characterized in** that the evaluation of CTL pulses is effected by counting successive CTL pulses.

3. Method according to claim 2, **characterized** in that the evaluation of CTL pulses can be checked using a function for a residual tape determination that is provided in the recorder.

5        4. Method according to claim 3, **characterized** in that miscounts caused by CTL failure are corrected using the tape remainder determination.

10       5. Method according to claim 1, **characterized** in that the difference between the slanted track number provided as start position and the slanted track number provided as target position is converted into a CTL pulse train.

15       6. Method according to claim 5, **characterized** in that the CTL pulse train can be converted into a relative search duration in which the start position is used as absolute start time.

20       / 7. Video recorder according to the helical scan method, which enables both the recording and/or reproduction of analogue and the recording and/or reproduction of digital television signals in slanted tracks of a recording medium, numbering of the slanted tracks and longitudinal track recording of CTL pulses being provided with the recording of digital television signals, **characterized in** that the video recorder has a search mode for digital television signals which is carried out using an evaluation of the slanted track numbering in conjunction with the evaluation of successive CTL pulses which have been recorded during the recording of the digital television signals, by the search mode having the following successive steps:

25       30       a) inputting of a search stop time by means of a remote control of the apparatus or a control device of the apparatus,

35       b) determination of a tape position as start position by reading the slanted track numbering at a tape transport speed  $v_1$  by means of read/write heads arranged on a rotating head drum in the reproduction mode of the apparatus,

- c) acceleration of the tape transport to a tape transport speed  $v_2$  by means of a tape winding device of the apparatus,
- 5 d) control of the tape winding arrangement of the recorder by means of control and evaluation means ( $\mu P$ ) by reading and evaluating successive CTL pulses using a stationary read/write head with reference to start and target positions,
- 10 e) reduction in the tape transport speed  $v_2$  in the vicinity of the target position to the tape transport speed  $v_1$  by means of the control and evaluation means ( $\mu P$ ), and
- 15 f) control of the search by means of the control and evaluation means ( $\mu P$ ) by reading and evaluating the slanted track numbering until the target position is reached.